UNC Demand Estimation Sub-committee Technical Workgroup Minutes

Wednesday 16 September 2015

31 Homer Road, Solihull B91 3LT

Attendees

Helen Cuin (Chair)	(HC)	Joint Office
Karen Visgarda (Secretary)	(KV)	Joint Office
Abigail Triggs	(AT)	Xoserve
Anupa Purewal	(AP)	E.ON UK
Fiona Cottam	(FC)	Xoserve
Joe Lloyd	(JL)	Xoserve
Mandeep Pangli	(MP)	Xoserve
Martin Attwood	(MA)	Xoserve
Sallyann Blackett	(SB)	E.ON UK
Tony Davey*	(TD)	SSE

* via teleconference

Copies of papers are available at: http://www.gasgovernance.co.uk/DESC/160915

1. Introduction

1.1. Note of Alternates

Sallyann Blackett (E.ON UK) for Christian Ivaha (British Gas).

Fiona Cottam (Xoserve) for Transporters, National Grid Distribution, Scotia Gas Networks and Wales & West Utilities.

2. Review of Minutes and Actions from previous meeting (24 June 2015)

2.1. Minutes

FC suggested the following clarification to the 24 June 2015 minutes:

Section 3.1 (page 2): Query 3: Christmas Flatness, and Query 4: General Christmas query

Referring first to Slide 16 (Query 4) FC set out the general context in relation to Christmas. There was an agreed set of rules applied to the treatment of Christmas, which FC explained in more detail. The result this year was very different to last year - because of how the cycle worked out it was necessary to apply an extra 6 days at the end of the period (because of how 02 January falls) of Holiday Codes. It also depended on how Holiday Factors interplay with Holiday Codes, i.e. how much demand reduction the models indicate for each different Holiday Code. PR indicated she was happy with the response.

The Minutes of the previous meeting were approved.

2.2. Actions (DESC TWG)

DTW0502: DESC and Xoserve to work together to look at ways to enhance the current data sets with a target to have additional data for October.
Update: See item 3.0 – Shipper data validation. **Carried Forward.**

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DTW1201 (related to DTW0502 above): FC to prepare an email for circulation to the industry inviting parties to support DESC Technical Workgroup analysis and data sets *(see Action DTW0502, above)*, if the use of Shipper data in the autumn validation exercise is a success.
Update: See item 3.0 – Shipper data validation*. **Carried Forward.**

DTW0701: DESC Members to consider future or additional strands on algorithm performance.
Update: See item 4.0 - First draft of Algorithm Performance Proposals – Post Nexus. **Complete**

DE0501: FC to investigate with National Grid NTS adding the Unidentified Gas values on to the National Grid Data Website.
Update: HC confirmed this is an ongoing DESC action, for consideration at the**.** November meeting**. Carried forward.**

3. **Shipper data validation**

MP provided the Shipper Data Validation presentation.

MP explained that the NDM sample data numbers have been decreasing over time and the UNC allows Transporters to acquire NDM sample data from third parties (i.e. smart metered data). Action DTW0502 was established to allow Xoserve to explore this further. The analysis is required to review the suitability of the additional data and determine whether it would be possible to use it as part of the sample data.

SB highlighted that this may not be all smart meter data; some data will be taken from AMR equipment.

MP explained that Xoserve had received sample data from British Gas (BG) and E.On. The analysis presented was on the BG dataset only, as the E.On dataset was currently being validated before it could be assessed. The validation rules had to be relaxed due to some gaps in the BG data. Xoserve therefore increased the "missing days" threshold to 40 days.

A summary of the results was provided. MP explained that Xoserve had concentrated on the NT and SE LDZs as these gave the best and worst results, to take into account equal variances or means. SB suggested the comparison in data may have different results if similar numbered sample sizes were used, for example reducing a larger sample to equal the number of a smaller sample, as this may impact the variances/variability.

The Workgroup discussed some of the alternatives to scale the results to normalise them. MP explained that Xoserve had tried normalising the data and this didn't make a difference.

The workgroup considered how the SE LDZ sample data for April to June could be stratified and how gap filling could be impacting the results. MA stated there was an impact caused due to the weather and the associated demand. SB asked if this data analysis was like this due to the breakdown of the Smart Meters versus Band 1, and if it would make a difference if the data was analysed starting at the top of the Domestic market, rather than the usual spread, which could 'skew' the results. MA explained that there had been 12,000 sites in the British Gas data and when this was validated the data had ended up with 3,000 sites. SB asked if the sample could not be across the AQ range and not across the EUC Bands. FC explained that Xoserve aim for a sample distribution, which is close to the stratification of Band 1 overall. SB proposed that in the Nexus World the biggest difference would be in the Domestic versus I&C usage in Band 1 and if Xoserve could not fill the gaps to provide a more realistic picture. FC stated this was not possible, as consumers could not provide additional data where the gaps had been filled, with regards to the residential Smart Meters. MA referred to the presentation, regarding the area where they had no data at all and how; this was highlighted by the circles on the schematic.

TD enquired about the make up of the sample and if the size of sites were also similar which may impact the data. FC explained having quickly normalised some of the averages, it doesn't look as if the average consumption of the sites in the British Gas sample is significantly different to the AMR sample.

MP concluded that the results from the t-test indicate the means for the AMR sample data are different and outlined the assumptions for this. Further work will be carried out to compare the weather sensitivity of British Gas data in comparison to the AMR data and to explore the E.ON data.

Action DTW0901: Xoserve to normalise the Shipper validation data using the ALP formula applied to demand.

4. **First draft of Algorithm Performance Proposals – Post Nexus**

MA provided the Post Nexus Algorithm Performance Initial Proposals presentation.

MA explained at the DESC meeting on 08 July 2015 discussions took place regarding NDM algorithm performance post Nexus implementation. For clarification, the purpose of NDM Algorithm Performance is to assess the accuracy of the estimated allocations derived by the formula.

An action was created (DE0701) requesting DESC members to consider future or additional strands on Algorithm Performance. DESC decided to pass this action onto the Technical Workgroup for consideration. The slides set out an initial proposal of the future strands and the views of DESC TWG representatives were invited.

MA provided some considerations for the Workgroup and the new (option E) demand formula and to avoid any overlap of the AUGE and Performance Assurance Workgroup.

MA provided the proposed strands for the post Nexus Algorithm Performance, Strand 1 – NDM sample analysis, Strand 2 - Unidentified Gas levels, Strand 3 – Reconciliation Analysis, Strand 4 – SNCWV Analysis.

The progress of unidentified gas, the added complexity of closing out and the use of rolling 12-month allocation were considered. Both SB and TD stated they wanted to know how the Unidentified Gas moves and if the profiles were accurate. SB and TD also asked if Xoserve were monitoring any specific patterns of this movement. FC stated that clearly there was a timeline of between 3 or 4 years until the 'Close Out', which did not help this situation with regards to reconciling the Unidentified Gas. SB highlighted that this timeline was not ideal as 4 more profiles would have been completed in that timeframe. It was recognised that some assumptions may need to be made, and some arbitrary rules may be required for the reconciliation analysis.

MA welcomed thoughts from the Workgroup representatives and asked if members would be happy with the proposed strands.

MA wanted to bring to the attention of the Workgroup the data results with regards to the proposed Strand 4 – SNCWV analysis, as Xoserve do not currently report against Seasonal Normal. FC explained as DESC is responsible for maintaining Seasonal Normal, it makes sense to monitor this, however, this would only be reported on every 6 months. SB asked if this would be Volume Weighted across the LDZs. MA confirmed this was correct. TD stated this was very valid and important analysis, with regards to a performance monitor.

SB proposed that the WCF performance was difficult to compare, FC explained that WCF was equal to the EWCF in the future world. Discussion took place with regards to how the WCF will change in the 'Nexus World', against the overall demand. FC stated the WCF could be capped e.g. at -x and +y at a suitable point where there would be no more reaction to weather, but she also stated that Xoserve are simulating the new algorithm for a further gas year to see how that performs.

5. **Data Aggregations**

JL provided the LDZ aggregations presentation.

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JL explained that the April 2015 TWG highlighted an instance where sample numbers were lower than the preferred number of 30 I&C sites. For example the EUC band 3 - 4 WAR band 4 for NO had a sample size of 18. The Workgroup had proposed that the list of data aggregations for modelling should be reviewed in advance of the Spring analysis.

JL provided all the current aggregations on the modelling system and noted that the aggregations should be geographically sensible groups. He explained there is no scope for new aggregations without replacing some existing ones.

To solve the small sample numbers that prompted this review it was suggested that NO could be combined with NE or alternatively NO with SC. The other permutations to capture all 13 LDZs would be NW/WN combined, WS/SW combined with any remaining LDZs individual.

JL highlighted that the de-aggregation of supply points may influence the sample numbers, he re-assured parties that Xoserve are looking at this and a review could be undertaken to assess if the numbers have materially changed and impact other aggregations

The Workgroup concluded it would be best to reconsider the data aggregations at the November DESC.

6. Any Other Business

6.1. AMR Battery Replacement

MA provided a presentation on the Technolog Battery Replacement Project.

MA explained that the Technolog Automated Meter Reading units used by Xoserve are reaching the end of their 5-year battery life expectancy. The Battery Replacement Project has therefore been deemed necessary to ensure they continue to receive reliable consumption data from the 4,000 sample sites around the country

The work will be conducted by Utilitec Services and Xoserve will be providing support to help minimise any losses to the sample numbers. All sample members will receive a letter detailing the project. Site visits started in September 2015. Target completion will be February 2016.

SB asked about the change to a 5:00-5:00 gas day, FC explained this was being undertaken remotely via the Central System and that site visits were not necessary.

6.2. Negative NDM allocation

SB asked about the process post Nexus, FC explained it was very early days at the moment but Xoserve will start examining these in the New Year and will engage with the Transporters to try to implement new tolerance checks, probably based on the daily level of UG.

6.3. Results of the UNC Panel / UNC Committee Elections for 2015/16

HC noted that the UNC Committee Elections results had been announced and the following had been appointed as DESC members:

Christian Ivaha (British Gas), Fiona Speak (RWEnpower), Sallyann Blackett (E.ON UK) and Tony Davey (SSE).

HC confirmed the membership details will be updated on the website at: http://www.gasgovernance.co.uk/desc on 01 October 2015 and requested members consider nominating a standing alternate if they will be different to the ones already listed (Matt Jackson, British Gas and Anupa Purewal, E.ON)

7. Next Steps

8. Diary Planning

Further details of planned meetings are available at: www.gasgovernance.co.uk/Diary

DESC and DESC Technical Workgroup Meetings 2015

Time/Date	Venue	Meeting	Programme
10:00 Tuesday 17 November 2015	31 Homer Road	**DESC TWG**	LDZ Data aggregation Draft Spring Approach 2016 Shipper data validation
10:00 Tuesday 17 November 2015	31 Homer Road	**DESC**	Unidentified Gas Values (Action DE0501) Model Smoothing
10:00 16 February 2016	31 Homer Road	**DESC TWG and DESC**	TBC

DESC TWG Action Table (29 July 2015)					
Action Ref	**Meeting Date(s)**	**Minute Ref**	**Action**	**Owner**	**Status Update**
DTW0502 *(transferred to DESC TWG)*	21/05/14	DESC TWG 3.0	DESC and Xoserve to work together to look at ways to enhance the current data sets with a target to have additional data for October.	All	**Carried forward**
DTW1201 *(transferred to DESC TWG)*	03/12/14	DESC 2.2	FC to prepare an email for circulation to the industry inviting parties to support DESC Technical Workgroup analysis and data sets.	Xoserve (FC)	**Carried forward**
DTW0701 *(transferred to DESC TWG)*	08/07/15	DESC 4.0	DESC Members to consider future or additional strands on algorithm performance.	All parties	**Complete**
DTW0901	16/09/15	DESC TWG 3.0	Xoserve to normalise the Shipper validation data using the ALP formula applied to demand.	Xoserve (MP)	**Pending**

DESC Action Table (29 July 2015)					
Action Ref	**Meeting Date(s)**	**Minute Ref**	**Action**	**Owner**	**Status Update**
DE0501	19/05/15	DESC 3.0	FC to investigate with National Grid NTS adding the Unidentified Gas values on to the National Grid Operational Data Website.	Xoserve (FC)	**Carried forward**